

US EPA RECORDS CENTER REGION 5



407728

INSPECTION REPORT
FOR
ALLIED CHEMICAL CORP.
(NATIONAL WORKS)
GARFIELD HEIGHTS, OH

OHD004221586

R05-8601-05

JUNE 6, 1986

SITE INSPECTION MEMO

1

2070 - 13 FORM

2

SITE MAPS

3

SITE PHOTOGRAPHS

4



1




ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

M E M O R A N D U M

DATE: May 21, 1986
TO: File
FROM: Richard Dagnall 
SUBJECT: Ohio/R05-8601-05/OH0101
Garfield Heights/Allied Chemical Corp.-National Works
OHD004221586

A site inspection of the above named facility was conducted on May 14, 1986 by Region V FIT personnel Richard Dagnall and Tim Maley. The facility operated as an acid production facility from 1895 to 1976. The facility currently produces aluminum sulfate.

The company operated as part of Allied Corporation. Allied Corporation merged with Signal Corporation to form Allied-Signal Inc. As of May 16, 1986, Allied-Signal Inc. grouped a number of its businesses together to form an independent company called the Henley Group. The facility inspected is now known as General Chemical Group-National Works and is part of the Henley Group.

There are only two waste types known to have been disposed of on-site. The first is gypsum. The gypsum is believed to be a by product of HF production. The gypsum was used as fill material on the site. The second waste is Allum Process Residue. This is a by product of aluminum sulfate production. Neither waste is CERCLA regulated hazardous waste.

The facility is located in an industrial area. It is fenced on three sides and is bordered by Mill Creek on the fourth.

99T:5W



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I IDENTIFICATION

D1 STATE OH D2 SITE NUMBER 0004-221-586

II. SITE NAME AND LOCATION

D1 SITE NAME (Legal, common, or descriptive name of site) Allied Chemical Corp. (National Works)		D2 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 5000 Warner Road				
CITY Garfield Heights		D4 STATE OH	D5 ZIP CODE 44125	D6 COUNTY Cuyahoga	D7 COUNTY CODE 35	D8 CONG DIST 20
D9 COORDINATES LATITUDE 41° 25' 30" N LONGITUDE 081° 38' 08" W		10 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C STATE <input type="checkbox"/> D COUNTY <input type="checkbox"/> E MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G UNKNOWN				

III. INSPECTION INFORMATION

D1 DATE OF INSPECTION 5/14/86 MONTH DAY YEAR	D2 SITE STATUS <input checked="" type="checkbox"/> ACTIVE <input type="checkbox"/> INACTIVE	D3 YEARS OF OPERATION 1895 1 Present BEGINNING YEAR ENDING YEAR	UNKNOWN
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D4 AGENCY PERFORMING INSPECTION (Check all that apply)

<input type="checkbox"/> A EPA	<input checked="" type="checkbox"/> B EPA CONTRACTOR Ecology + Environment, Inc. (Name of firm)	<input type="checkbox"/> C MUNICIPAL	<input type="checkbox"/> D MUNICIPAL CONTRACTOR (Name of firm)
<input type="checkbox"/> E STATE	<input type="checkbox"/> F. STATE CONTRACTOR (Name of firm)	<input type="checkbox"/> G OTHER (Specify)	

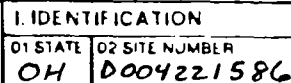
D5 CHIEF INSPECTOR Richard Dagnall	D6 TITLE Chemical Engineer	D7 ORGANIZATION E + E	D8 TELEPHONE NO (312) 663-9415
D9 OTHER INSPECTORS Tim Maley	10 TITLE Geologist	11 ORGANIZATION E + E	12 TELEPHONE NO (312) 663-9415
Kevin Bonzo	Geologist	OEPA	(216) 425-9171
			()
			()
			()

13 SITE REPRESENTATIVES INTERVIEWED Steve Shogren	14 TITLE Environmental Supervisor	15 ADDRESS Route 3, Box 30 Harrisburg, IL 62946	16 TELEPHONE NO (618) 252-3215
Robert Swanson	Location Supervisor	5000 Warner Rd. Cleveland, OH 44125	(216) 441-2100
			()
			()
			()
			()

17 ACCESS GAINED BY (Check one) <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT	18 TIME OF INSPECTION 1300	19 WEATHER CONDITIONS 70-75° F Occasional Showers
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IV. INFORMATION AVAILABLE FROM

D1 CONTACT Garry Gifford	D2 OF (Agency Organization) Ohio EPA - NEDO	D3 TELEPHONE NO (216) 425-9171		
D4 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Richard Dagnall	D5 AGENCY FIT	D6 ORGANIZATION E + E	D7 TELEPHONE NO (312) 663-9415	D8 DATE 5/19/86 MONTH DAY YEAR



☐ I HIGHLY VOLATILE
☐ J EXPLOSIVE
☐ K REACTIVE
☐ L INCOMPATIBLE
☐ M NOT APPLICABLE



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
OH D004221586

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION

There is no groundwater use in the area. The allum residue sits directly on the ground. The residue has a low solubility in water.

01 ☐ B SURFACE WATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION

The site is bordered on one side by Mill Creek. Mill Creek is not used for anything.

01 ☐ C CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION

There is no basis to suspect a release or a possible release to the air.

01 ☐ D FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION

There is no risk of a fire or explosion.

01 ☐ E DIRECT CONTACT 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION

The site is fenced on three sides and Mill Creek runs along the remaining side.

01 ☐ F CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED 60 04 NARRATIVE DESCRIPTION
(Acres)

The waste is not contained. It rests directly on the ground.

01 ☐ G DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION

All drinking water is provided by the City of Cleveland. The water intake is outside of the area of concern.

01 ☐ H WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

There is no reason to suspect a potential for worker injury due to the waste on site.

01 ☐ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION

Access to the population is restricted.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I IDENTIFICATION
01 STATE 02 SITE NUMBER
OH D004221586

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J DAMAGE TO FLORA 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None has been noted

01 ☐ K DAMAGE TO FAUNA 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

None has been noted

01 ☐ L CONTAMINATION OF FOOD CHAIN 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None has been noted

01 ☐ M UNSTABLE CONTAINMENT OF WASTES 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
(Spills, Runoff, Standing liquids, Leaking drums)
03 POPULATION POTENTIALLY AFFECTED: 0 04 NARRATIVE DESCRIPTION

The waste is uncovered and piled on the ground. No containment exists. The waste is not hazardous and no route exists to affect the population.

01 ☐ N DAMAGE TO OFFSITE PROPERTY 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None has been noted

01 ☐ O CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None has been noted

01 ☐ P ILLEGAL/UNAUTHORIZED DUMPING 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None has been noted

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None to note.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 0

IV. COMMENTS

There is no known hazardous waste at the site.

V. SOURCES OF INFORMATION (Cite specific references e.g. state fees, sample analysis reports.)

Site inspection and interview performed by FIT 5/15/86
OEPA Files, NE District Office, Twinsburg
E&E Files



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER 0004221586

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input type="checkbox"/> A NPDES				
<input type="checkbox"/> B UIC				
<input type="checkbox"/> C AIR				3 state air permits
<input type="checkbox"/> D RCRA				
<input type="checkbox"/> E RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE (Specify)				
<input type="checkbox"/> H. LOCAL (Specify)				
<input type="checkbox"/> I. OTHER (Specify)				
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE/ DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT (Check all that apply)	05 OTHER
<input type="checkbox"/> A SURFACE IMPOUNDMENT			<input type="checkbox"/> A. INCINERATION	<input checked="" type="checkbox"/> A. BUILDINGS ON SITE
<input checked="" type="checkbox"/> B. PILES	100,000	tons	<input type="checkbox"/> B. UNDERGROUND INJECTION	3 Buildings
<input type="checkbox"/> C. DRUMS, ABOVE GROUND			<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	06 AREA OF SITE
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	60 Acres
<input type="checkbox"/> F. LANDFILL			<input type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER (Specify)	
<input type="checkbox"/> I. OTHER (Specify)			N/A	

07 COMMENTS

The allum residue is used to form an above-ground "pond" in which process slurry is pumped. As the slurry dries, the new residue is added to the walls of the pond.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☒ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

No containment is technically used. The dry residue forms a dike for the process slurry.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

The site is fenced on three sides, and Mill Creek runs along the fourth side.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state laws, sample analysis reports)

On-site interview and site inspection by FIT 5/14/86
OEPA File, NEDO, Twinsburg
E+E Files



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I IDENTIFICATION

01 STATE 02 SITE NUMBER
OH D004221586

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	02 STATUS	03 DISTANCE TO SITE																		
<table border="0"><tr><td></td><td>SURFACE</td><td>WELL</td></tr><tr><td>COMMUNITY</td><td>A <input checked="" type="checkbox"/></td><td>B <input type="checkbox"/></td></tr><tr><td>NON-COMMUNITY</td><td>C <input type="checkbox"/></td><td>D <input type="checkbox"/></td></tr></table>		SURFACE	WELL	COMMUNITY	A <input checked="" type="checkbox"/>	B <input type="checkbox"/>	NON-COMMUNITY	C <input type="checkbox"/>	D <input type="checkbox"/>	<table border="0"><tr><td>ENDANGERED</td><td>AFFECTED</td><td>MONITORED</td></tr><tr><td>A <input type="checkbox"/></td><td>B <input type="checkbox"/></td><td>C <input type="checkbox"/></td></tr><tr><td>D <input type="checkbox"/></td><td>E <input type="checkbox"/></td><td>F <input type="checkbox"/></td></tr></table>	ENDANGERED	AFFECTED	MONITORED	A <input type="checkbox"/>	B <input type="checkbox"/>	C <input type="checkbox"/>	D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>	A. <u>>3</u> (mi) B. _____ (mi)
	SURFACE	WELL																		
COMMUNITY	A <input checked="" type="checkbox"/>	B <input type="checkbox"/>																		
NON-COMMUNITY	C <input type="checkbox"/>	D <input type="checkbox"/>																		
ENDANGERED	AFFECTED	MONITORED																		
A <input type="checkbox"/>	B <input type="checkbox"/>	C <input type="checkbox"/>																		
D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>																		

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A ONLY SOURCE FOR DRINKING ☐ B DRINKING
(Other sources available)
COMMERCIAL, INDUSTRIAL, IRRIGATION
(No other water sources available)

☐ C COMMERCIAL, INDUSTRIAL, IRRIGATION
(Limited other sources available) ☒ D NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER <u>0</u>	03 DISTANCE TO NEAREST DRINKING WATER WELL <u>>3</u> (mi)			
04 DEPTH TO GROUNDWATER <u>unknown</u> (ft)	05 DIRECTION OF GROUNDWATER FLOW <u>unknown</u>	06 DEPTH TO AQUIFER OF CONCERN <u>N/A</u> (ft)	07 POTENTIAL YIELD OF AQUIFER <u>N/A</u> (gpd)	08 SOLE SOURCE AQUIFER <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <u>N/A</u>

09 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)

Wells are not used within 3-miles of the site.

10 RECHARGE AREA <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO COMMENTS <u>N/A</u>	11 DISCHARGE AREA <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO COMMENTS <u>N/A</u>
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IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☐ A RESERVOIR, RECREATION
DRINKING WATER SOURCE ☐ B IRRIGATION, ECONOMICALLY
IMPORTANT RESOURCES ☐ C COMMERCIAL, INDUSTRIAL ☒ D NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME	AFFECTED	DISTANCE TO SITE
<u>Mill Creek</u>	<input type="checkbox"/>	<u><2000</u> ft
<u>Cuyahoga River</u>	<input type="checkbox"/>	<u>1/4</u> (mi)
_____	<input type="checkbox"/>	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN	02 DISTANCE TO NEAREST POPULATION									
<table border="0"><tr><td>ONE (1) MILE OF SITE</td><td>TWO (2) MILES OF SITE</td><td>THREE (3) MILES OF SITE</td></tr><tr><td>A <u>2000</u></td><td>B <u>7000</u></td><td>C <u>15000</u></td></tr><tr><td>NO. OF PERSONS</td><td>NO. OF PERSONS</td><td>NO. OF PERSONS</td></tr></table>	ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE	A <u>2000</u>	B <u>7000</u>	C <u>15000</u>	NO. OF PERSONS	NO. OF PERSONS	NO. OF PERSONS	<u>1/4</u> (mi)
ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE								
A <u>2000</u>	B <u>7000</u>	C <u>15000</u>								
NO. OF PERSONS	NO. OF PERSONS	NO. OF PERSONS								

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE <u>2500</u>	04 DISTANCE TO NEAREST OFF-SITE BUILDING <u><2000</u> ft
--	--

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g. rural, village, densely populated urban area)

The area around the site is a densely populated urban area.
It is a combination of commercial and industrial areas.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
OH 0004221586

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A $10^{-8} - 10^{-6}$ cm/sec ☒ B $10^{-4} - 10^{-6}$ cm/sec ☐ C $10^{-4} - 10^{-3}$ cm/sec ☐ D GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☒ A IMPERMEABLE (Less than 10^{-8} cm/sec) ☐ B RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☐ C RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK

unk (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

0 (ft)

05 SOIL pH

unk

06 NET PRECIPITATION

1 (in)

07 ONE YEAR 24 HOUR RAINFALL

2.25 (in)

08 SLOPE
SITE SLOPE

0-3 %

DIRECTION OF SITE SLOPE

west

TERRAIN AVERAGE SLOPE

0-3 %

09 FLOOD POTENTIAL

SITE IS IN N/A YEAR FLOODPLAIN

10

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY
N/A

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE

A > 3 (mi)

OTHER

B > 3 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

N/A (mi)

ENDANGERED SPECIES

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS, NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

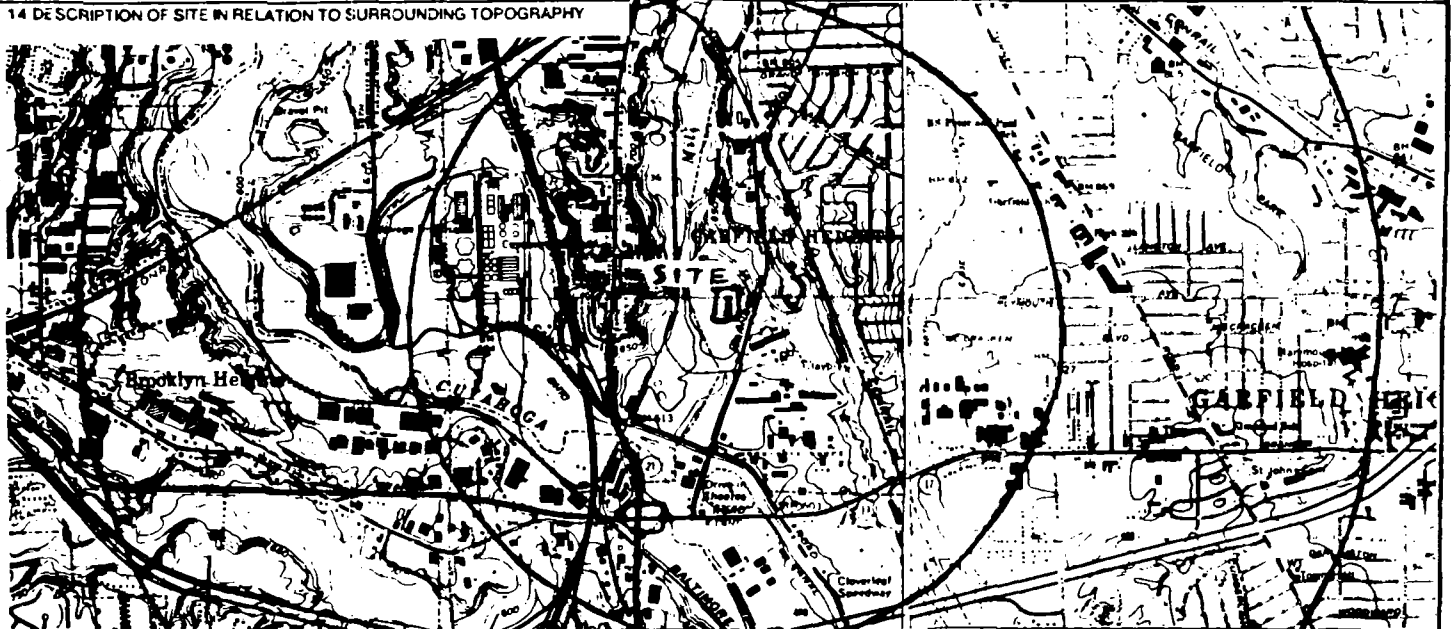
AGRICULTURAL LANDS
PRIME AG LAND AG LAND

A < 2000 ft (mi)

B 1/4 (mi)

C > 3 (mi) D > 3 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY



VII. SOURCES OF INFORMATION (Give specific references: e.g., state files, sample analysis, reports)

OCEPA FILES, NEDO, TWINSBURG
EPE FILES



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH D004221586

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF <u>Ecology & Environment</u> <small>(Name of organization or individual)</small>
03 MAPS <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	04 LOCATION OF MAPS

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

No field data collected

VI. SOURCES OF INFORMATION (Give specific references, e.g., state files, sample analysis reports)

E & E Files



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH 0004221586

II. CURRENT OWNER(S)

PARENT COMPANY (if applicable)

01 NAME 02 D+B NUMBER 08 NAME 09 D+B NUMBER
General Chem. Group Henley Group

03 STREET ADDRESS (P.O. Box, RFD #, etc.) 04 SIC CODE 10 STREET ADDRESS (P.O. Box, RFD #, etc.) 11 SIC CODE
5000 Warner Rd 5000 Warner Rd

05 CITY 06 STATE 07 ZIP CODE 12 CITY 13 STATE 14 ZIP CODE
Garfield Heights OH 44125 Garfield Heights OH 44125

01 NAME 02 D+B NUMBER 08 NAME 09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.) 04 SIC CODE 10 STREET ADDRESS (P.O. Box, RFD #, etc.) 11 SIC CODE

05 CITY 06 STATE 07 ZIP CODE 12 CITY 13 STATE 14 ZIP CODE

01 NAME 02 D+B NUMBER 08 NAME 09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.) 04 SIC CODE 10 STREET ADDRESS (P.O. Box, RFD #, etc.) 11 SIC CODE

05 CITY 06 STATE 07 ZIP CODE 12 CITY 13 STATE 14 ZIP CODE

01 NAME 02 D+B NUMBER 08 NAME 09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.) 04 SIC CODE 10 STREET ADDRESS (P.O. Box, RFD #, etc.) 11 SIC CODE

05 CITY 06 STATE 07 ZIP CODE 12 CITY 13 STATE 14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)

IV. REALTY OWNER(S) (if applicable, list most recent first)

01 NAME 02 D+B NUMBER 01 NAME 02 D+B NUMBER
Allied-Signal Inc. General Chem. Group

03 STREET ADDRESS (P.O. Box, RFD #, etc.) 04 SIC CODE 03 STREET ADDRESS (P.O. Box, RFD #, etc.) 04 SIC CODE
Columbia Rd. 5000 Warner Rd

05 CITY 06 STATE 07 ZIP CODE 05 CITY 06 STATE 07 ZIP CODE
Morristown NJ 07960 Garfield Heights OH 44125

01 NAME 02 D+B NUMBER 01 NAME 02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.) 04 SIC CODE 03 STREET ADDRESS (P.O. Box, RFD #, etc.) 04 SIC CODE

05 CITY 06 STATE 07 ZIP CODE 05 CITY 06 STATE 07 ZIP CODE

01 NAME 02 D+B NUMBER 01 NAME 02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.) 04 SIC CODE 03 STREET ADDRESS (P.O. Box, RFD #, etc.) 04 SIC CODE

05 CITY 06 STATE 07 ZIP CODE 05 CITY 06 STATE 07 ZIP CODE

V. SOURCES OF INFORMATION (Check specific references, e.g., state files, sample analysis, reports)

Site Inspection and Interview by FIT, 5/14/86
OEPA Files, NEDO, Twinsburg
E+E Files



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH D004221586

II. CURRENT OPERATOR (Provide if different from owner)

OPERATOR'S PARENT COMPANY (if applicable)

01 NAME General Chem. Group			02 D+B NUMBER			10 NAME Henley Group			11 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 5000 Warner Rd			04 SIC CODE			12 STREET ADDRESS (P.O. Box, RFD #, etc.) 5000 Warner Rd			13 SIC CODE		
05 CITY Garfield Heights		06 STATE OH	07 ZIP CODE 44125		14 CITY Garfield Heights		15 STATE OH	16 ZIP CODE 44125			
08 YEARS OF OPERATION 1986-		09 NAME OF OWNER									

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

PREVIOUS OPERATORS' PARENT COMPANIES (if applicable)

01 NAME Allied-Signal Inc			02 D+B NUMBER			10 NAME			11 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.) Columbia Rd			04 SIC CODE			12 STREET ADDRESS (P.O. Box, RFD #, etc.)			13 SIC CODE		
05 CITY Morristown		06 STATE NJ	07 ZIP CODE 07960		14 CITY		15 STATE	16 ZIP CODE			
08 YEARS OF OPERATION 1984-1986		09 NAME OF OWNER DURING THIS PERIOD									

01 NAME Allied Corp			02 D+B NUMBER			10 NAME			11 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE			12 STREET ADDRESS (P.O. Box, RFD #, etc.)			13 SIC CODE		
05 CITY		06 STATE	07 ZIP CODE		14 CITY		15 STATE	16 ZIP CODE			
08 YEARS OF OPERATION 1985-1984		09 NAME OF OWNER DURING THIS PERIOD									

01 NAME			02 D+B NUMBER			10 NAME			11 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE			12 STREET ADDRESS (P.O. Box, RFD #, etc.)			13 SIC CODE		
05 CITY		06 STATE	07 ZIP CODE		14 CITY		15 STATE	16 ZIP CODE			
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD									

IV. SOURCES OF INFORMATION (Give specific references e.g. state files, sample analysis reports)

Site Inspection and Interview by FIT, 5/14/86
OEPA Files, NEDO, Twinsburg
E+E Files



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH D004221586

II. ON-SITE GENERATOR

01 NAME General Chem. Group	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 5000 Warner Rd	04 SIC CODE
05 CITY Garfield Heights	06 STATE 07 ZIP CODE OH 44125

III. OFF-SITE GENERATOR(S)

01 NAME None	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME None	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

V. SOURCES OF INFORMATION (Check all that apply: e.g., state files, analytical reports)

Site Inspection and Interview by FIT, 5/14/86
OEPA Files, NEDO, Twinsburg
EPE Files



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH D004221586

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ D. SPILLED MATERIAL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ E. CONTAMINATED SOIL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ F. WASTE REPACKAGED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ G. WASTE DISPOSED ELSEWHERE
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ H. ON SITE BURIAL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ I. IN SITU CHEMICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ J. IN SITU BIOLOGICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ K. IN SITU PHYSICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ L. ENCAPSULATION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ M. EMERGENCY WASTE TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ N. CUTOFF WALLS
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ P. CUTOFF TRENCHES/SUMP
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ Q. SUBSURFACE CUTOFF WALL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH D004221586

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R BARRIER WALLS CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

N/A

01 ☐ S CAPPING/COVERING
04 DESCRIPTION

02 DATE

03 AGENCY

N/A

01 ☐ T BULK TANKAGE REPAIRED
04 DESCRIPTION

02 DATE

03 AGENCY

N/A

01 ☐ U GROUT CURTAIN CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

N/A

01 ☐ V BOTTOM SEALED
04 DESCRIPTION

02 DATE

03 AGENCY

N/A

01 ☐ W GAS CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

N/A

01 ☐ X FIRE CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

N/A

01 ☐ Y LEACHATE TREATMENT
04 DESCRIPTION

02 DATE

03 AGENCY

N/A

01 ☐ Z AREA EVACUATED
04 DESCRIPTION

02 DATE

03 AGENCY

N/A

01 ☐ 1 ACCESS TO SITE RESTRICTED
04 DESCRIPTION

02 DATE

03 AGENCY

N/A

01 ☐ 2 POPULATION RELOCATED
04 DESCRIPTION

02 DATE

03 AGENCY

N/A

01 ☒ 3 OTHER REMEDIAL ACTIVITIES
04 DESCRIPTION

02 DATE

03 AGENCY

1975

OEPA

The OEPA required the reclamation of parts of the site when the acid production facilities were closed and removed. The land reclaimed was the land used to pile feedstocks i.e. coal & sulfur piles.

III. SOURCES OF INFORMATION (Cite specific references, e.g., State files, sample analysis, reports)

Site Inspection and Interview by FIT, 5/14/86
OEPA Files, NEDO, Twinsburg
EPE Files



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

D1 STATE	D2 SITE NUMBER
OH	0004221586

II. ENFORCEMENT INFORMATION

D1 PAST REGULATORY ENFORCEMENT ACTION ☐ YES ☒ NO

D2 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis reports)

Site Inspection and Interview by FIT, 5/14/86
OEPA Files, NEDO, Twinsburg
EPE Files

Immediate Removal Action Check Sheet

	High	Moderate	Low
<u>Fire and Explosion Hazard</u>			
Flammable Materials _____			x
Explosives _____			x
Incompatible Chemicals _____			x
<u>Direct Contact with Acutely Toxic Chemicals</u>			
Site Security _____			x
Leaking Drums or Tanks _____			x
Open Lagoons or pits _____			x
Materials on Surface _____	x		
Proximity of Population _____			x
Evidence of Casual Site Use _____			x
<u>Contaminated Water Supply</u>			
Exceeds 10 Day Snarl _____			x
Gross Taste or Odors _____			x
Alternate Water Available _____			x
Potential Contamination _____			x
Is the site abandoned or <u>active?</u>			

Comments

The waste at the site is piled on the ground surface. The waste is not hazardous and is not regulated under CERCLA.

020002 1-84

**Allied
Chemical**

An **ALLIED** Company

**PRODUCT SAFETY
DATA SHEET**

CALCINED CLAY

A. GENERAL INFORMATION

TRADE NAME (COMMON NAME OR SYNONYM) CALCINED FLINT CLAY		<input type="checkbox"/> C.A.S. NO. <input type="checkbox"/> ALLIED PRODUCT CODE •	
CHEMICAL NAME A Dehydrated Aluminum Silicate Clay of the Kaolin Family.			
FORMULA Unknown. Chemistry usually discussed in terms of Alumina (Al₂O₃) content and Silica (Si₂O₃) content.		MOLECULAR WEIGHT Unknown	
ADDRESS (No., STREET, CITY, STATE AND ZIP CODE) ALLIED CHEMICAL P.O. Box 1139R Morristown, N.J. 07960			
CONTACT Director, Product Safety	PHONE NUMBER (201) 455-4157	ISSUED DATE May, 1982	REVISED DATE

B. FIRST AID MEASURES

Eyes: Flush promptly and thoroughly with water. If symptoms persist, get medical attention. <u>Inhalation:</u> Remove to fresh air. <u>Ingestion:</u> Get medical attention.	EMERGENCY PHONE NUMBER (201) 455-2000
--	---

C. HAZARDS INFORMATION

HEALTH

INHALATION Inhalation of dust may cause discomfort. See Unusual Chronic Toxicity, below.	
INGESTION May cause discomfort. No toxic effects or symptoms are known. The main component, aluminum silicate, is rated essentially harmless. Reference (a).	
SKIN No reports of irritation or other harmful effects.	
EYES No reaction with tissue. Irritating as a foreign object if exposure is appreciable.	
PERMISSIBLE CONCENTRATION: AIR (SEE SECTION J) See Section K.	BIOLOGICAL
UNUSUAL CHRONIC TOXICITY Long term inhalation of high concentrations of crystalline silica dust can cause silicosis, a condition of massive fibrosis of the lungs, marked by shortness of breath and reduced respiratory function.	

C HAZARDS (Cont.)**FIRE AND EXPLOSION**

Clay pg 2 of 4

FLASH POINT <input type="checkbox"/> Not flammable <input type="checkbox"/> OPEN CUP <input type="checkbox"/> CLOSED CUP	AUTO IGNITION TEMPERATURE Not applicable	FLAMMABLE LIMITS IN AIR (% BY VOL.) Not applicable
UNUSUAL FIRE AND EXPLOSION HAZARDS None		

D PRECAUTIONS/PROCEDURES

FIRE EXTINGUISHING AGENTS RECOMMENDED Not applicable
FIRE EXTINGUISHING AGENTS TO AVOID
SPECIAL FIRE FIGHTING PRECAUTIONS Not applicable
VENTILATION Provide local or general (mechanical) exhaust as required to keep exposures to dust below permissible concentration level. In the absence of dust, natural ventilation is adequate.
NORMAL HANDLING Handling practices should be designed and performed to keep dusting to a minimum. Avoid breathing dust. Use only with adequate ventilation. Avoid contact with eyes.
STORAGE No special precautions are required.
SPILL OR LEAK Sweep up with a minimum of dusting, and place in container, e.g. fiberboard.
SPECIAL PRECAUTIONS/PROCEDURES/LABEL INSTRUCTIONS No special precautions are required.

E PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION Not required for normally-vented situations. For emergencies or poorly ventilated spaces, use an appropriate respirator approved by NIOSH for silica-containing dusts. Respirator should be clean, in good condition, and properly used.
EYES AND FACE In dusty condition prevails, use safety goggles. Under this condition, do not wear contact lenses. In the absence of dust, safety glasses are adequate.
HANDS, ARMS, AND BODY Work gloves.
OTHER CLOTHING AND EQUIPMENT Not generally required.

F. PHYSICAL DATA

Chy pg 3 of 4

MATERIAL IS (AT NORMAL CONDITIONS): <input type="checkbox"/> LIQUID <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> GAS <input type="checkbox"/> _____		APPEARANCE AND ODOR Gr .y to reddish-brown powder; odorless.	
BOILING POINT Not applicable °C	SPECIFIC GRAVITY (H ₂ O = 1) Estimated: 3.247 Bulk density: 81 # / cu.ft.		VAPOR DENSITY (AIR = 1) Not applicable
MELTING POINT °C			
SOLUBILITY IN WATER (% by Weight) Negligible		VAPOR PRESSURE (mm Hg at 20° C) <input type="checkbox"/> (PSIG) <input type="checkbox"/> Not applicable	
EVAPORATION RATE (Butyl Acetate = 1) <input type="checkbox"/> (Ether = 1) <input type="checkbox"/> Not applicable		% VOLATILES BY VOLUME (At 20° C) Not applicable	

G. REACTIVITY DATA

STABILITY <input type="checkbox"/> UNSTABLE <input checked="" type="checkbox"/> STABLE	CONDITIONS TO AVOID
INCOMPATIBILITY (MATERIALS TO AVOID) Not applicable	
HAZARDOUS DECOMPOSITION PRODUCTS Not applicable	
HAZARDOUS POLYMERIZATION <input type="checkbox"/> MAY OCCUR <input checked="" type="checkbox"/> WILL NOT OCCUR	CONDITIONS TO AVOID

H. HAZARDOUS INGREDIENTS (Mixtures Only)

SERIAL OR COMPONENT/C.A.S. #	WT. %	HAZARD DATA (SEE SECT. J)
Not applicable		

ENVIRONMENTAL

May 06 4 07 4

DEGRADABILITY/AQUATIC TOXICITY

OCTANOL/WATER PARTITION COEFFICIENT

EPA HAZARDOUS SUBSTANCE? ☐ YES ☒ NO

IF SO, REPORTABLE QUANTITY: _____ #

40 CFR
116-117

WASTE DISPOSAL METHODS (DISPOSER MUST COMPLY WITH FEDERAL, STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS)

Dispose of in landfill or by other approved method.

RCRA STATUS OF UNUSED MATERIAL:

Not a "hazardous waste".

40 CFR
261**J. REFERENCES**

PERMISSIBLE CONCENTRATION REFERENCES

- (1) OSHA Standard, 29 CFR 1910.000, Table Z-3, reprinted June 19, 1981.
- (2) "Threshold Limit Values for Chemical Substances. . .", ACGIH (1981).

REGULATORY STANDARDS

D.O.T. CLASSIFICATION Not regulated.

49 CFR

GENERAL

- (a) Gosselin, R.E. et al, Clinical Toxicology of Commercial Products, 4th Edition, 1976, Williams & Wilkins, Baltimore, entry: aluminum silicate.

ADDITIONAL INFORMATIONSection C. Permissible Concentration

Permissible concentration(s) shall be determined using one of the following formulas. The percentage of SiO₂ in the formulas is the amount determined from airborne sampling.

Total Crystalline SiO₂Respirable Crystalline SiO₂

OSHA:
$$\frac{30}{\% \text{ SiO}_2 + 2} \text{ mg/cu.m.}$$

$$\frac{10}{\% \text{ SiO}_2 + 2} \text{ mg/cu.m.}$$

ACGIH:
$$\frac{30}{\% \text{ SiO}_2 + 3} \text{ mg/cu.m.}$$

same as above

*Use percentage of respirable SiO₂ as defined in the references noted above.

THIS PRODUCT SAFETY DATA SHEET IS OFFERED SOLELY FOR YOUR INFORMATION, CONSIDERATION AND INVESTIGATION.

ALLIED CORPORATION PROVIDES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, AND ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE DATA CONTAINED HEREIN.

**ALLIED CORP.
CHEMICAL SECTOR**

Alum Process Residue

**IN-PLANT
MATERIAL SAFETY
DATA SHEET
FOR PLANT USE ONLY**

A. GENERAL INFORMATION

PLANT IDENTIFICATION OF PRODUCT Alum Process Residue		<input type="checkbox"/> C.A.S. NO. <input type="checkbox"/> PLANT CODE NO.	
CHEMICAL NAME Clay and Bauxite, Residues			
FORMULA Unknown - chemistry usually discussed in terms of clays, alumina, Titanium, Dioxide, Bauxite, and non-crystalline Silica.		MOLECULAR WEIGHT	
ALLIED CHEMICAL ADDRESS (No., STREET, CITY, STATE AND ZIP CODE) AN ALLIED COMPANY P.O. BOX 1139R MORRISTOWN, NJ 07960			
CONTACT Director, Product Safety	PHONE NUMBER (201) 455-4157	ISSUED DATE	REVISED DATE October 1985

B. FIRST AID MEASURES

EMERGENCY PHONE NUMBER
(201) 455-2000

Eye Contact: Flush eyes with copious amounts of water to eliminate mechanical irritation.

C. HAZARDS INFORMATION

HEALTH

INHALATION Nuisance Dust - No particular hazard due to toxicity.	
INGESTION	
SKIN No reports of irritation due to skin contact.	
EYES May cause mechanical irritation due to inert dusts.	
PERMISSIBLE CONCENTRATION: AIR (SEE SECTION J) 10 mg/m ³ as a nuisance dust.	BIOLOGICAL
UNUSUAL CHRONIC TOXICITY None	

C. HAZARDS (Cont.)**FIRE AND EXPLOSION**

FLASH POINT Non-Flammable	°C	AUTO IGNITION TEMPERATURE N/A	°C	FLAMMABLE LIMITS IN AIR (% BY VOL.) LOWER - - UPPER - -
<input type="checkbox"/> OPEN CUP <input type="checkbox"/> CLOSED CUP				
UNUSUAL FIRE AND EXPLOSION HAZARDS NONE				

D. PRECAUTIONS/PROCEDURES

FIRE EXTINGUISHING AGENTS RECOMMENDED Non-Flammable
FIRE EXTINGUISHING AGENTS TO AVOID NONE
SPECIAL FIRE FIGHTING PRECAUTIONS NONE
VENTILATION Use adequate ventilation to avoid nuisance dusts.
NEUTRAL HANDLING Avoid dust generation.
SPILLAGE —
SPILL OR LEAK
SPECIAL PRECAUTIONS/PROCEDURES/LABEL INSTRUCTIONS NONE

E. PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION NIOSH approved dust respirator
EYES AND FACE Wear eye protection to avoid dust in eyes.
HANDS, ARMS, AND BODY NONE
OTHER CLOTHING AND EQUIPMENT Not Required

F. PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS): <input type="checkbox"/> LIQUID <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> GAS <input type="checkbox"/> _____		APPEARANCE AND ODOR Grey to redish-brown, powder or damp sandy powder.	
BOILING POINT °C MELTING POINT NA °C	SPECIFIC GRAVITY (H ₂ O = 1) 3.3	VAPOR DENSITY (AIR = 1) NA	
SOLUBILITY IN WATER (% by Weight) < 1	pH NA	VAPOR PRESSURE (mm Hg at 20° C) <input type="checkbox"/> (PSIG) <input type="checkbox"/> NA	
EVAPORATION RATE (Butyl Acetate = 1) <input type="checkbox"/> (Ether = 1) <input type="checkbox"/> NA	% VOLATILES BY VOLUME (At 20° C) NA		

G. REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID
<input type="checkbox"/> UNSTABLE	<input checked="" type="checkbox"/> STABLE	NONE
INCOMPATIBILITY (MATERIALS TO AVOID)		
NONE		
HAZARDOUS DECOMPOSITION PRODUCTS		
NONE		
HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
<input type="checkbox"/> MAY OCCUR	<input checked="" type="checkbox"/> WILL NOT OCCUR	

H. HAZARDOUS INGREDIENTS (Mixtures Only)

MATERIAL OR COMPONENT/C.A.S. #	WT. %	HAZARD DATA (SEE SECT. J)

J. ENVIRONMENTAL

DEGRADABILITY/AQUATIC TOXICITY

OCTANOL/WATER PARTITION COEFFICIENT

EPA HAZARDOUS SUBSTANCE? ☐ YES ☒ NO

IF SO, REPORTABLE QUANTITY: _____ #

40 CFR
116-117

WASTE DISPOSAL METHODS (DISPOSER MUST COMPLY WITH FEDERAL, STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS)

Material is non-hazardous. Can be swept up and shoveled into a container for disposal in a sanitary landfill.

RCRA STATUS OF UNUSED MATERIAL:

40 CFR
261**J. REFERENCES**

PE POSSIBLE CONCENTRATION REFERENCES

ACGIH — Nuisance dust

REGULATORY STANDARDS

D.O.T. CLASSIFICATION:

49 CFR

K. ADDITIONAL INFORMATION

THIS MATERIAL SAFETY DATA SHEET IS FOR IN-PLANT USE ONLY.
IT IS NOT TO BE DISTRIBUTED OUTSIDE ALLIED CORP.

ALLIED CHEMICAL COMPANY
SYRACUSE RESEARCH LABORATORY

MEMORANDUM

ALLIED - CONFIDENTIAL

DATE: June 9, 1983

SUBJECT: IDENTIFICATION OF MATERIAL UNDER PARKING LOT AT NATIONAL WORKS

TO: Robert P. Swanson
National Works

Copies to: S. L. Bean, SRL
J. W. Swaine, Jr., SRL
B. W. Carr, DVW
P. Rinear, Allied Chemical, Route 13, Marcus Hook, PA 19061
Paul Bowens, Menasha, WI

A sample of material buried under the parking lot near the front office at National Works - Cleveland, Ohio has been identified at Syracuse Research Laboratory.

The compounds identified by X-ray diffraction are:

- (1) gypsum - $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
- (2) anhydrite - CaSO_4
- (3) alpha quartz - SiO_2 (<1%)

In addition, the elemental composition was determined by X-ray fluorescence and the material was found to be primarily CaSO_4 , which confirms the above results. Elements found:

Major
Ca
S

Minor-Trace
Si
Fe
Pb
Br
Sr

George L. Miller
George L. Miller
Research Chemist
Syracuse Research Laboratory

GLM:ecb

EXHIBIT A

CHARACTERIZATION OF ALUM MUDS

The following characterization of alum muds is intended by the parties to this Agreement to be generally descriptive of alum muds although the parties agree that the actual alum muds placed in the alum cell may deviate somewhat from this typical characterization and that the characterization is or may not be complete for every purpose.

TYPICAL RESIDUE COMPOSITION

(% Weight Dry Basis)

SiO ₂	77
Al ₂ O ₃	13
TiO ₂	3
Fe ₂ O ₃	<1
Other	<u>6</u>
	100%

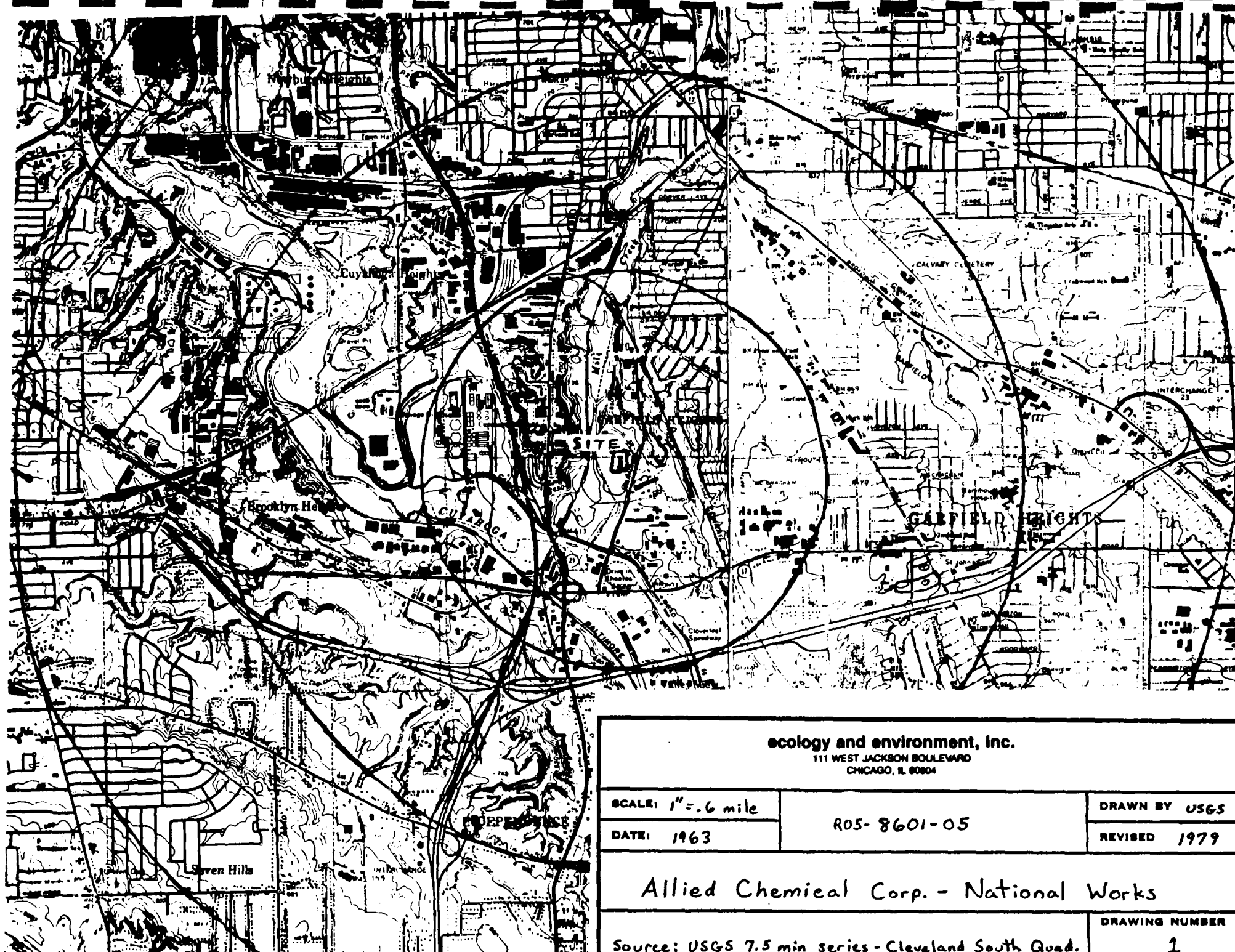
Typical % solids 45

Physical Consistency: Thixotropic Mud

Typical RCRA - Extraction Procedure Analysis (mg/l.)

Arsenic	< 0.002
Barium	< 0.2
Cadmium	< 0.002
Chromium	< 0.05
Lead	< 0.05
Mercury	< 0.0003
Selenium	< 0.003
Silver	< 0.005
pH	3.5

Endrin, Lindane, Methoxychlor, Toxaphene, 2, 4-D, and 2, 4, 5-TP (Silvex) are not present in process.



ecology and environment, inc.

111 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

SCALE: 1" = .6 mile

DATE: 1963

R05- 8601-05

DRAWN BY USGS

REVISED 1979

Allied Chemical Corp. - National Works

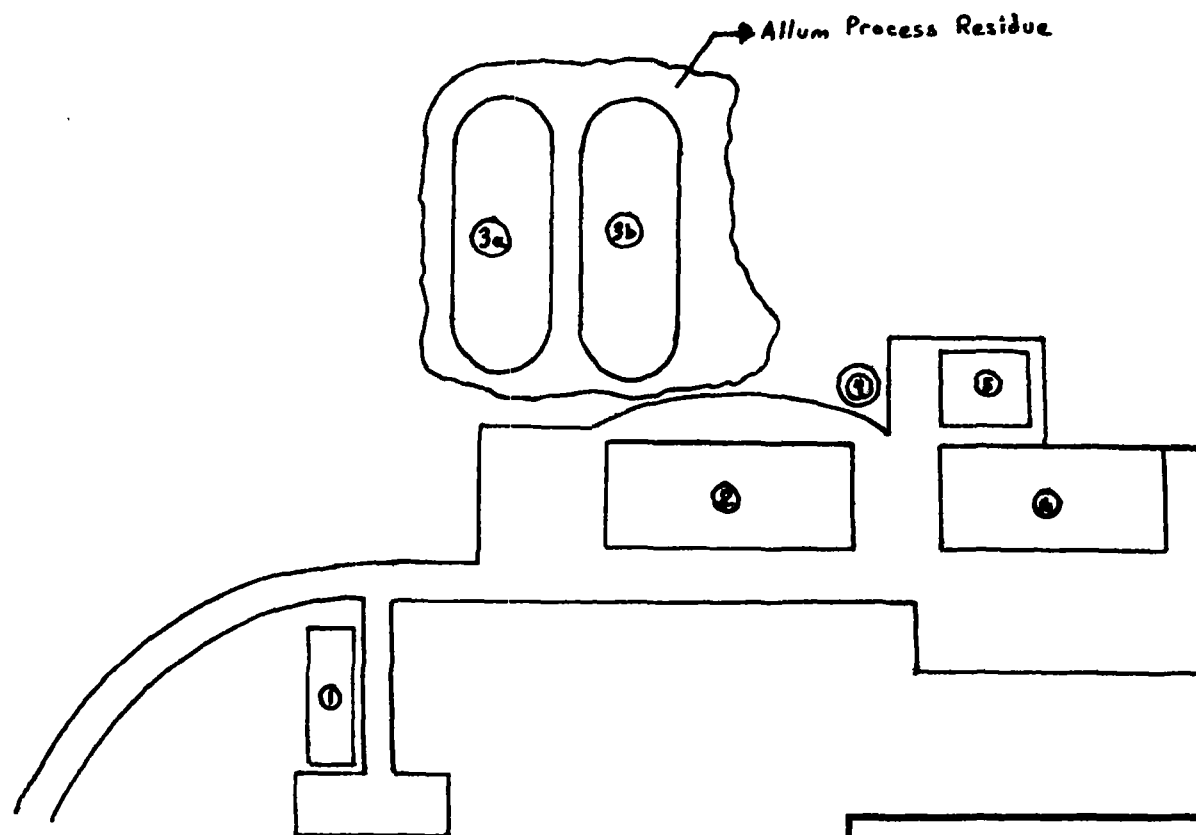
Source: USGS 7.5 min series - Cleveland South Quad.

DRAWING NUMBER

1

Legend

- 1- Office Building
- 2- Production Facility
- 3a-3b- Allum Residue Ponds
- 4- Empty storage Silo
- 5- Sulfuric Acid Tanks
- 6- Warehouse



ecology and environment, Inc.

111 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

SCALE: None

DATE: 5/19/86

R05-8601-05

DRAWN BY R.A.D.

REVISED

Allied Chemical Corp. - National Works

DRAWING NUMBER

2

FIELD PHOTOGRAPHY LOG SHEET

Page 2/2DATE May 14, 1986TIME 2:00 A.M. (P.M.)DIRECTION: (N) NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNWWEATHER warm and
rainySITE Allied Chem. CorpTDD# ROS-8601-5

PHOTOGRAPHED BY:

Richard Dagnall

SAMPLE ID# (if applicable)

DESCRIPTION: Sulfuric Acid Storage TanksDATE May 14, 1986TIME 2:00 A.M. (P.M.)DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
(W) WNW NW NNWWEATHER warm and
rainySITE Allied Chem CorpTDD# ROS-8601-5

PHOTOGRAPHED BY:

R. Dagnall

SAMPLE ID# (if applicable)

DESCRIPTION: Allum Residue piles

FIELD PHOTOGRAPHY LOG SHEET

Page 1/2DATE May 14, 1986TIME 2:00 A.M. (P.M.)DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW (NW) NNWWEATHER Warm and
rainySITE Allied Chemical CorpTDD# ROS-8601-5

PHOTOGRAPHED BY:

Richard Dagnall

SAMPLE ID# (if applicable)

DESCRIPTION: Aluminum Sulfate Manufacturing PlantDATE May 14, 1986TIME 2:00 A.M. (P.M.)DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
(W) WNW NW NNWWEATHER Warm and
rainySITE Allied Chem. CorpTDD# ROS-8601-5

PHOTOGRAPHED BY:

R. Dagnall

SAMPLE ID# (if applicable)

DESCRIPTION: Wall of the Allum Residue Pond